## (19) World Intellectual Property Organization International Bureau





(43) International Publication Date 10 February 2005 (10.02.2005)

(10) International Publication Number WO 2005/012278 A2

(51) International Patent Classification7:

C07D 307/00

(21) International Application Number:

PCT/GB2004/003209

(22) International Filing Date: 23 July 2004 (23.07.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: 0317475.2

25 July 2003 (25.07.2003)

- (71) Applicant (for all designated States except US): MED-ITAB SPECIALITIES PVT. LTD [IN/IN]; 12 Gunbow Street, Mumbai 400 001 (IN).
- (71) Applicant (for MW only): WAIN, Christopher, Paul [GB/GB]; A A Thornton & Co., 235 High Holborn, London WC1V 7LE (GB).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): Sunil, Govindrao [IN/IN]; Meditab Specialities Private Limited, D-22, MIDC Kurkumbh, Dist. 413801, Maharashtra (IN). GAWLI, Bhagwan, Narayan [IN/IN]; Meditab Specialities Privat Limited, D-22, MIDC Kurkumbh, Dist. Pune 413801, Maharashtra (IN).

- (74) Agents: WAIN, Christopher, Paul et al.; A A Thornton & Co, 235 High Holbon, London WC1V 7LE (GB).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM. TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

## Published:

without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: PRODUCT

(57) Abstract: A process of purifying citalopram, either in racemic or enantiomeric form, which process comprises (i) providing a crude mixture comprising citalopram, either in racemic or enantiomeric form, dissolved in a water immiscible organic solvent, and which mixture also includes one or more citalopram derivatives which are present as citalopram. impurities; (ii) washing the crude mixture with at least one dilute aqueous solution of a polybasic acid, either in free form or as a partial alkali metal salt, so as to separate citalopram from citalopram impurities present in the crude mixture; and (iii) where required converting citalopram free base, separated from citalopram impurities further to step (ii), to a pharmaceutically acceptable salt.

